

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A central control system that controls multiple air conditioners including at least one outdoor device and a plurality of indoor devices, said central control system comprising:

a central controller connected to the multiple air conditioners through a dedicated line, for transmitting and receiving signals based on an air conditioner communication protocol, to control the multiple air conditioners, the central controller being connected to an external Internet network for transmitting and receiving signals based on an Ethernet communication protocol and to receive a control command for the multiple air conditioners; and

a protocol converter, physically separate from the central controller, that performs a communication protocol conversion of a signal, whereby the control command input at a remote location can be transmitted to the multiple air conditioners through the Internet network, wherein the central controller transmits signals to and receives signals from the protocol converter using the Ethernet communication protocol, and the protocol converter converts signals between the Ethernet communication protocol and the air conditioner communication protocol.

2. (Original) The central control system as set forth in claim 1, wherein the central controller comprises:

a key input device that receives the control command associated with the multiple air conditioners; and

an output device that outputs control conditions of the multiple air conditioners operated according to the control command.

3. (Original) The central control system as set forth in claim 1, wherein the central controller comprises:

a control program driver that drives a control program accessible by a GUI (Graphic User Interface) for controlling the multiple air conditioners.

4. (Original) The central control system as set forth in claim 3, wherein the central controller comprises:

a control program transmitter that transmits the control program by downloading through an Internet browser by a remote controller in response to a request from the remote controller received through the Internet network.

5. (Original) The central control system as set forth in claim 1, wherein the central controller comprises:

a signal storage device that stores the control command received

through the Internet network;

an Internet data storage device that stores data for accessing the Internet network and IP address data; and

a controller that controls the flow of signals transmitted and received through the Internet network, and controls the protocol converter for performing a communication protocol conversion of a signal.

6. (Original) The central control system as set forth in claim 5, wherein the protocol converter is connected by a cable to the central controller through a serial port of the central controller.

7. (Currently Amended) A method of operating a central control system for multiple air conditioners, comprising:

receiving, by a central controller, a control command for the multiple air conditioners that is transmitted from a remote controller over an Internet network;

transmitting, by the central controller, the control command to a protocol converter, physically separate from the central controller, using an Ethernet communication protocol;

converting, by the protocol converter, the received control command into a control command based on an air conditioner communication protocol;

transmitting the control command based on the air conditioner communication protocol to the multiple air conditioners;

performing a control operation of the multiple air conditioners in response to the control command based on the air conditioner communication protocol;
and

transmitting data representing control conditions of the multiple air conditioners to the remote controller over the Internet network.

8. (Original) The method as set forth in claim 7, further comprising:

converting the control condition data into control condition data based on an Ethernet communication protocol prior to transmission over the Internet network.

9. (Currently Amended) A central control system that controls multiple air conditioners including at least one outdoor device and a plurality of indoor devices, said central control system comprising:

a central controller connected to the multiple air conditioners through a dedicated line that transmits and receives signals based on an air conditioner communication protocol to control the multiple air conditioners, the central controller being connected to an external network to transmit and receive signals based on an Ethernet communication protocol and to receive a control command input at a remote location for the multiple air conditioners; and

a protocol converter connected to and physically separate from the central controller to convert signals between the Ethernet communication protocol and the air conditioner communication protocol, the control command

input at a remote location being transmitted to the multiple air conditioners through the network.

10. (Previously Presented) The central control system as set forth in claim 9, wherein the central controller comprises:

a key input device that receives the control command associated with the multiple air conditioners; and

an output device that outputs control conditions of the multiple air conditioners operated according to the control command.

11. (Previously Presented) The central control system as set forth in claim 9, wherein the central controller comprises:

a control program driver that drives a control program accessible by a GUI (Graphic User Interface) for controlling the multiple air conditioners.

12. (Previously Presented) The central control system as set forth in claim 11, wherein the central controller comprises:

a control program transmitter that transmits the control program by downloading through a browser by a remote controller in response to a request from the remote controller received through the network.

13. (Previously Presented) The central control system as set forth in claim 9, wherein the central controller comprises:

a signal storage device that stores the control command received through the network;

a data storage device that stores data for accessing the network and IP address data; and

a controller that controls the flow of signals transmitted and received through the network, and controls the protocol converter for performing a communication protocol conversion of a signal.

14. (Previously Presented) The central control system as set forth in claim 9, wherein the protocol converter is connected to the central controller via a port of the central controller.

15. (Previously Presented) The central control system as set forth in claim 9, wherein the network is an Internet network.